Mr. D. Womersley
Cummins Engine Company - Midrange Engine Plant
Box 3005
Columbus, IN 47202-3005

Re: Significant Source Modification No:
005-11808-00047

Dear Mr. Womersley:

Cummins Engine Company - Midrange Engine Plant applied for a Part 70 operating permit on December 13, 1996 for the operation of a painting and testing internal combustion engines source. An application to modify the source was received on January 25, 2000. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) Four (4) diesel-powered engine test cells, known collectively as EU-P02, located in the main facility, installed in October 1991, exhausted to stack S02, rated at a heat input of 0.461 million British thermal units per hour to be increased by 10.0 million British thermal units per hour to 10.48 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, each, capacity: 320,501 gallons of diesel fuel per year to be increased by 335,448 gallons of diesel fuel per year to 655,949 gallons of diesel fuel per year, total.

(b) Two (2) diesel-powered engine attribute test cells, known collectively as EU-P03, located in the main facility, installed in October 1991, exhausted to stack S03, rated at a heat input of 0.461 million British thermal units per hour to be increased by 3.25 million British thermal units per hour to 3.71 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, each, capacity: 50,079 gallons of diesel fuel per year to be increased by 38,397 gallons of diesel fuel per year to 88,476 gallons of diesel fuel per year, each.

(c) One (1) diesel-powered engine attribute test cell, known as EU-P03, located in the main facility, installed in 1991, exhausted to stack S03, rated at a heat input of 0.461 million British thermal units per hour to be increased by 3.25 million British thermal units per hour to 3.71 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, capacity: 50,079 gallons of diesel fuel per year to be increased by 38,397 gallons of diesel fuel per year to 88,476 gallons of diesel fuel per year.

(d) Two (2) diesel-powered engine attribute test cells, known collectively as EU-P03, located in the main facility, to be installed, exhausted to stack S03, rated at a heat input of 3.71 million British thermal units per hour and a maximum output of 350 horsepower, each, capacity: 88,476 gallons of diesel fuel per year, each.

The proposed Significant Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). The source may begin operation upon issuance of the source modification approval.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Peter E. Fountaine, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

PEF/MES
Enclosures
cc: File - Bartholomew County
U.S. EPA, Region V
Air Compliance Section Inspector - D. J. Knotts
Compliance Data Section - Mendy Jones
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT

Cummins Engine Company - Midrange Engine Plant
I-65 at CR 450S
Columbus, Indiana 47201

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: SSM 005-11808-00047	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary painting and testing internal combustion engines source.

Responsible Official:	D. Womersley
Source Address:	I-65 at CR 450S, Columbus, Indiana 47201
Mailing Address:	Box No. 3005, Columbus, Indiana 47202-3005
Phone Number:	(812) 377-6694
SIC Code:	3519
County Location:	Bartholomew
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

Modified Facilities

(a) Four (4) diesel-powered engine test cells, known collectively as EU-P02, located in the main facility, installed in October 1991, exhausted to stack S02, rated at a heat input of 0.461 million British thermal units per hour to be increased by 10.0 million British thermal units per hour to 10.48 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, each, capacity: 320,501 gallons of diesel fuel per year to be increased by 335,448 gallons of diesel fuel per year to 655,949 gallons of diesel fuel per year, total.

(b) Two (2) diesel-powered engine attribute test cells, known collectively as EU-P03, located in the main facility, installed in October 1991, exhausted to stack S03, rated at a heat input of 0.461 million British thermal units per hour to be increased by 3.25 million British thermal units per hour to 3.71 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, each, capacity: 50,079 gallons of diesel fuel per year to be increased by 38,397 gallons of diesel fuel per year to 88,476 gallons of diesel fuel per year, each.

(c) One (1) diesel-powered engine attribute test cell, known as EU-P03, located in the main facility, installed in 1991, exhausted to stack S03, rated at a heat input of 0.461 million British thermal units per hour to be increased by 3.25 million British thermal units per hour to 3.71 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, capacity: 50,079 gallons of diesel fuel

per year to be increased by 38,397 gallons of diesel fuel per year to 88,476 gallons of diesel fuel per year.

New Facilities

(d) Two (2) diesel-powered engine attribute test cells, known collectively as EU-P03, located in the main facility, to be installed, exhausted to stack S03, rated at a heat input of 3.71 million British thermal units per hour and a maximum output of 350 horsepower, each, capacity: 88,476 gallons of diesel fuel per year, each.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)] [326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.

(c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

However, in the event that the Title V application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:

(1) If the Title V draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification will be included in the Title V draft.

(2) If the Title V permit has gone thru final EPA proposal and would be issued ahead of the Significant Source Modification, the Significant Source Modification will go thru a concurrent 45 day EPA review. Then the Significant Source Modification will be incorporated into the final Title V permit at the time of issuance.

(3) If the Title V permit has not gone thru final EPA review and would be issued after the Significant Source Modification is issued, then the Modification would be added to the proposed Title V permit, and the Title V permit will issued after EPA review.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

(b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this approval:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided in this approval, all air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6] [326 IAC 2-1.1-11]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.8 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.9 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6] [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this approval;

(3) The Compliance Monitoring Requirements in Section D of this approval;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this approval; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this approval. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this approval by the Permittee and maintained on site, and is comprised of:

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this approval; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this approval, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the approval unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the approval conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the approval, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.10 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one hundred twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.11 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

(a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.12 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this approval;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from an approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.13 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

(c) Unless otherwise specified in this approval, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

Modified Facilities

(a) Four (4) diesel-powered engine test cells, known collectively as EU-P02, located in the main facility, installed in October 1991, exhausted to stack S02, rated at a heat input of 0.461 million British thermal units per hour to be increased by 10.0 million British thermal units per hour to 10.48 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, each, capacity: 320,501 gallons of diesel fuel per year to be increased by 335,448 gallons of diesel fuel per year to 655,949 gallons of diesel fuel per year, total.

(b) Two (2) diesel-powered engine attribute test cells, known collectively as EU-P03, located in the main facility, installed in October 1991, exhausted to stack S03, rated at a heat input of 0.461 million British thermal units per hour to be increased by 3.25 million British thermal units per hour to 3.71 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, each, capacity: 50,079 gallons of diesel fuel per year to be increased by 38,397 gallons of diesel fuel per year to 88,476 gallons of diesel fuel per year, each.

(c) One (1) diesel-powered engine attribute test cell, known as EU-P03, located in the main facility, installed in 1991, exhausted to stack S03, rated at a heat input of 0.461 million British thermal units per hour to be increased by 3.25 million British thermal units per hour to 3.71 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, capacity: 50,079 gallons of diesel fuel per year to be increased by 38,397 gallons of diesel fuel per year to 88,476 gallons of diesel fuel per year.

New Facilities

(d) Two (2) diesel-powered engine attribute test cells, known collectively as EU-P03, located in the main facility, to be installed, exhausted to stack S03, rated at a heat input of 3.71 million British thermal units per hour and a maximum output of 350 horsepower, each, capacity: 88,476 gallons of diesel fuel per year, each.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2] [40 CFR 52.21]

(a) In order to avoid the requirements of 326 IAC 2-2, the four (4) diesel-powered engine test cells, known collectively as EU-P02, will be limited to 655,949 gallons of diesel fuel per twelve (12) consecutive month period, total.

(b) In order to avoid the requirements of 326 IAC 2-2, the five (5) diesel-powered engine attribute test cells, known collectively as EU-P03, will be limited to 88,476 gallons of diesel fuel per twelve (12) consecutive month period, each.

(c) Any change or modification which may increase the potential to emit from the entire source of any criteria pollutant needs prior approval from IDEM, OAM.

Compliance Determination Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.2 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facilities are in compliance. If testing is required by IDEM to confirm the emission factors for hazardous air pollutants (HAPs), from the engine test cells, they shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.3 Visible Emissions Notations

(a) Visible emission notations of the engine test cell stack exhausts shall be performed once per working shift during normal daylight operations when exhausted to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.4 Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records for the engine test cells and engine attribute cells in accordance with (1) through (6) below.

(1) Calendar dates covered in the compliance determination period;

(2) Actual diesel fuel usage since last compliance determination period;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications.

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the diesel fuel.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with Condition D.1.3, the Permittee shall maintain records of visible emission notations of the engine test cell stack exhausts once per working shift during normal daylight operations when exhausted to the atmosphere.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.5 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

Two (2) natural gas-fired boilers with No. 2 fuel oil backup, known as EU-B01, installed in 1973, exhausted through stack S10, rated at 61.5 million British thermal units per hour, each, limited to less than 6,704,225 gallons of No. 2 fuel oil, equivalent to less than 238 tons of SO_2 per twelve (12) consecutive month period, total.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Emission Limitations for Sources of Indirect Heating (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (PM Emissions Limitations) the PM emissions from the two (2) natural gas or No. 2 fuel oil-fired boilers known as EU-B01, rated at 61.5 million British thermal units per hour, each, shall not exceed 0.415 pound per million British thermal unit heat input as specified by the following equation.

$$Pt = (C \times a \times h) / (76.5 \times Q^{0.75} \times N^{0.25})$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 million British thermal units per hour heat input.

h = Stack height in feet. If a number of stacks of different heights exist, the average stack height will be computed using a weighted average of stack heights.

D.2.2 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) when burning No. 2 fuel oil, the SO_2 emissions from each of the two (2) sixty one and five tenths (61.5) million British thermal units per hour boilers shall not exceed five tenths (0.5) pounds per million British thermal units heat input.

D.2.3 Sulfur Dioxide (SO_2) [326 IAC 2-2]

(a) The total input of equivalent No. 2 fuel oil to the two (2) boilers, shall be limited to less than 6,704,225 gallons per twelve (12) consecutive month period rolled on a monthly basis. This fuel limit is equivalent to 238 tons per year of SO_2 and makes the requirements of 326 IAC 2-2 and 40 CFR 52.21 not applicable.

(b) For purposes of determining compliance based on SO_2 emissions each million cubic feet of natural gas shall be equivalent to 8.45 gallons of No. 2 fuel oil.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for the two (2) boilers.

Compliance Determination Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.2.1 or the SO_2 limit specified in Condition D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2.6 Sulfur Dioxide Emissions and Sulfur Content

Compliance for two (2) boilers shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the two (2) 61.5 million British thermal units per hour boilers, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.7 Visible Emissions Notations

(a) Visible emission notations of the boilers' stack exhaust shall be performed once per working shift during normal daylight operations when exhausting to the atmosphere burning No. 2 fuel oil. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.8 Record Keeping Requirements

(a) To document compliance with Conditions D.2.2 and D.2.3, the Permittee shall maintain records for two (2) boilers in accordance with (1) through (6) below.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications.

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with Conditions D.2.7, the Permittee shall maintain records of daily visible emission notations of the boilers' stack exhaust when burning No. 2 fuel oil.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.9 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.3 when No. 2 fuel oil or natural gas was combusted, and the natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Cummins Engine Company - Midrange Engine Plant
Source Address: I-65 at CR 450S, Columbus, Indiana 47201
Mailing Address: Box 3005, Columbus, Indiana 47202-3005
Source Modification No.: SSM 005-11808-00047

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Cummins Engine Company - Midrange Engine Plant
Source Address: I-65 at CR 450S Columbus, Indiana 47201
Mailing Address: Box 3005, Mail Code 71327, Columbus, Indiana 47202 - 3005
Source Modification No.: SSM 005-11808-00047

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Report period
Beginning: _____
Ending: _____

Boiler Affected	Alternate Fuel	Days burning alternate fuel From	To

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Cummins Engine Company - Midrange Engine Plant
Source Address: I-65 at CR 450S, Columbus, Indiana 47201
Mailing Address: Box 3005, Mail Code 71327, Columbus, Indiana 47202 - 3005
Source Modification No.: SSM 005-11808-00047
Facilities: Four (4) diesel-powered engine test cells (EU-P02)
Parameter: Diesel fuel
Limit: 655,949 gallons per twelve (12) consecutive month period, total

YEAR: _____

Month	Diesel Fuel	Diesel Fuel	Diesel Fuel
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Cummins Engine Company - Midrange Engine Plant
Source Address: I-65 at CR 450S, Columbus, Indiana 47201
Mailing Address: Box 3005, Mail Code 71327, Columbus, Indiana 47202 - 3005
Source Modification No.: SSM 005-11808-00047
Facilities: Five (5) diesel-powered engine attribute test cells (EU-P03)
Parameter: Diesel fuel
Limit: 442,380 gallons (88,476 gallons X five (5) engine attribute test cells) per twelve (12) consecutive month period, total

YEAR: _____

Month	Diesel Fuel	Diesel Fuel	Diesel Fuel
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Cummins Engine Company - Midrange Engine Plant
Source Address: I-65 at CR 450S, Columbus, Indiana 47201
Mailing Address: Box 3005, Mail Code 71327, Columbus, Indiana 47202 - 3005
Source Modification No.: SSM 005-11808-00047
Facilities: Two (2) 61.5 million British thermal units per hour boilers (EU-B01)
Parameter: No. 2 equivalent fuel oil
Limit: Less than 6,704,225 gallons per twelve (12) consecutive month period total
Each million cubic feet of natural gas is equivalent to 8.45 gallons of No. 2 fuel oil
Equivalent to less than 238 tons of SO_2 per twelve (12) consecutive month period

YEAR: _____

Month	No.2 Equivalent Oil This Month	No.2 Equivalent Oil Previous 11 Months	No.2 Equivalent Oil 12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Part 70
Significant Source Modification

Source Background and Description

Source Name:	**Cummins Engine Company - Midrange Engine Plant**
Source Location:	**I-65 at CR 450S, Columbus, Indiana 47201**
County:	**Bartholomew**
SIC Code:	**3519**
Operation Permit No.:	**T 005-7672-00047**
Operation Permit Issuance Date:	**Yet to be issued**
Significant Source Modification No.:	**SSM 005-11808-00047**
Permit Reviewer:	**Peter E. Fountaine**

The Office of Air Management (OAM) has reviewed a modification application from Cummins Engine Company - Midrange Engine Plant relating to the construction and modification of an additional two (2) engine attribute test cells in the main facility and to increase the potential fuel throughput to the existing four (4) engine test cells and three (3) engine attribute test cells in the main facility consisting of the following emission units:

Modified Facilities

(a) Four (4) diesel-powered engine test cells, known collectively as EU-P02, located in the main facility, installed in October 1991, exhausted to stack S02, rated at a heat input of 0.461 million British thermal units per hour to be increased by 10.0 million British thermal units per hour to 10.48 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, each, capacity: 320,501 gallons of diesel fuel per year to be increased by 335,448 gallons of diesel fuel per year to 655,949 gallons of diesel fuel per year, total.

(b) Two (2) diesel-powered engine attribute test cells, known collectively as EU-P03, located in the main facility, installed in October 1991, exhausted to stack S03, rated at a heat input of 0.461 million British thermal units per hour to be increased by 3.25 million British thermal units per hour to 3.71 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, each, capacity: 50,079 gallons of diesel fuel per year to be increased by 38,397 gallons of diesel fuel per year to 88,476 gallons of diesel fuel per year, each.

(c) One (1) diesel-powered engine attribute test cell, known as EU-P03, located in the main facility, installed in 1991, exhausted to stack S03, rated at a heat input of 0.461 million British thermal units per hour to be increased by 3.25 million British thermal units per hour to 3.71 million British thermal units per hour and a maximum output of 215 horsepower to be increased by 135 horsepower to 350 horsepower, capacity: 50,079 gallons of diesel fuel per year to be increased by 38,397 gallons of diesel fuel per year to 88,476 gallons of diesel fuel per year.

Note: The above units have been permitted under CP 005-2150-00047, issued on October 16, 1991, CP 005-7540-00047, issued on February 5, 1997, and EU-P03, an unpermitted CWOP/OWOP emission unit, will be permitted under T 005-7672-00047.

New Facilities

(d) Two (2) diesel-powered engine attribute test cells, known collectively as EU-P03, located in the main facility, to be installed, exhausted to stack S03, rated at a heat input of 3.71 million British thermal units per hour and a maximum output of 350 horsepower, each, capacity: 88,476 gallons of diesel fuel per year, each.

History

On January 25, 2000, Cummins Engine Company - Midrange Engine Plant submitted an application to the OAM requesting to construct an additional two (2) engine attribute test cells in the main facility and to increase the potential fuel throughput of the existing four (4) engine test cells and three (3) engine attribute test cells in the main facility. This will result in a total fuel throughput increase from 470,735 gallons of diesel fuel per year by 627,594 gallons of diesel fuel per year to 1,098,329 gallons of diesel fuel per year, total, for the nine (9) engine test cells in the main facility.

These fuel throughputs are the potential amounts of fuel combusted and are limited. None of the facilities in this modification had previous limited fuel throughputs.

This modification will make Cummins Engine Company - Midrange Engine Plant a major source pursuant to 326 IAC 2-2 Prevention of Significant Deterioration as the permitted emissions from this source will now exceed two hundred fifty (250) tons per year of nitrogen oxides (NO_x) and sulfur dioxide (SO_2). Since all emission increases are less than two hundred fifty (250) tons per year of any criteria pollutant, this modification will be considered minor pursuant to 326 IAC 2-2. Cummins Engine Company - Midrange Engine Plant has yet to be issued a Part 70 permit.

Section D.2 has been added to this modification to incorporate, and reference, all requirements for the two (2) boilers including record keeping and reporting. This was done since the fuel limit for the boilers was contained in the Part 70 permit that has not yet been issued. Putting the fuel limit in this modification will insure that the existing source, prior to this modification, will be minor for PSD and therefore this modification will be a minor modification to an existing minor PSD source pursuant to 326 IAC 2-2.

Existing Approvals

The source applied for a Part 70 Operating Permit on December 13, 1996. The source has been operating under previous approvals including, but not limited to, the following:

(a) CP 005-2150 issued on October 16, 1991.

(b) CP 005-7540 issued on February 5, 1997.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
S03	Two (2) new engine test cells (EU-P03)	34.0	2.0	4120	500

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 25, 2000.

Emission Calculations

See page 2 of 2 of Appendix A of this document for detailed emissions calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the potential to emit before controls of the additional two (2) engine attribute test cells in the main facility and the potential to emit resulting from the increased potential fuel throughput to the existing four (4) engine test cells and three (3) engine attribute test cells in the main facility. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	13.3
PM_{10}	13.3
SO_2	12.5
VOC	15.5
CO	40.8
NO_X	190

HAP's	Potential To Emit (tons/year)
Benzene	0.0410
Toluene	0.0180
Xylene	0.0125
1,3 Butadiene	0.00172
Formaldehyde	0.0518
Acetaldehyde	0.0337
Acrolein	0.00406
PAH	0.00738
TOTAL	0.170

Justification for Modification

(a) The Part 70 Operating Permit is being modified through a Part 70 Significant Source Modification to a yet to be issued Part 70 Operating Permit because the potential to emit before controls of this modification exceeds twenty-five (25) tons per year. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4).

(b) Since the Part 70 Operating Permit for this source has not been issued yet, the approval of this Significant Source Modification will allow the source to construct and operate.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1996 AIRS Facility Subsystem Quick Look Report emission data and applicant supplied HAP emissions.

Pollutant	Actual Emissions (tons/year)
PM	2.93
PM_{10}	2.93
SO_2	2.64
VOC	26.8
CO	9.97
NO_X	45.0
Acetaldehyde	0.00829
Acrolein	0.00157
Benzene	0.0147
Formaldehyde	0.0810
Mercury	0.000360
Naphthalene	0.00519
Toluene	0.00951

Pollutant	Actual Emissions (tons/year)
Xylene	4.89
1,3-Butadiene	0.000390
Arsenic	0.000714
Beryllium	0.000357
Cadmium	0.00179
Chlorobenzene	0.000357
Chromium	0.0114
Ethyl benzene	1.50
Fluoranthene	0.0000797
Hydrochloric Acid	0.449
Lead	0.00143
Manganese	0.00250
Nickel	0.293
Selenium	0.00393
Acenaphthene	0.0000142
Acenaphthylene	0.0000505
Aldehydes	0.698
Anthracene	0.0000187
Benz(a)anthracene	0.0000168
Benzo(a)pyrene	0.00000188
Benzo(b)fluoranthene	0.000000989
Benzo(g,h,i)perylene	0.00000488
Benzo(k)fluoranthene	0.00000155
Chrysene	0.00000352
Dibenz(a,h)anthracene	0.00000582
Fluoranthene	0.0000759
Fluorene	0.000291
Indeno(1,2,3-cd)pyrene	0.00000374
Phenanthrene	0.000293
Propylene	0.0260
Pyrene	0.0000477
Hexane	0.120
Polycyclic Organic Matter	0.00000000361

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Status
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_X) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Bartholomew County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_X emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Bartholomew County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	18.0
PM_{10}	18.4
SO_2	249.7
VOC	84.9
CO	85.1
NO_X	230

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon calculated emissions from Part 70 permit number T 005-7672-00047.

(c) Pursuant to Part 70 permit number T 005-7672-00047, yet to be issued, a synthetic minor limit was placed on two (2) natural gas-fired boilers with No. 2 fuel oil backup, known as EU-B01, installed in 1973, exhausted through stack S10, rated at 61.5 million British thermal units per hour, each, of less than 6,704,225 gallons of No. 2 fuel oil, equivalent to less than 238 tons of SO_2 per twelve (12) consecutive month period, total. This limit resulted in total emissions from the existing source, including the unlimited maximum potential to emit from all engine test cells and engine attribute test cells, to be less than 250 tons per year of all pollutants.

(d) None of the facilities in this modification had previous limited fuel throughputs.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM_{10}	SO_2	VOC	CO	NO_X	HAPs
Proposed Modification	13.3	13.3	12.5	15.5	40.8	190	0.170
PSD Threshold Level	250	250	250	250	250	250	

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. None of the facilities in this modification had previous limited fuel throughputs. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T 005-7672-00047) application on December 13, 1996. The engine test cells being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration)

(a) In order to avoid the requirements of 326 IAC 2-2, the four (4) diesel-powered engine test cells, known collectively as EU-P02, will be limited to 655,949 gallons of diesel fuel per twelve (12) consecutive month period, total.

(b) In order to avoid the requirements of 326 IAC 2-2, the five (5) diesel-powered engine attribute test cells, known collectively as EU-P03, will be limited to 88,476 gallons of diesel fuel per twelve (12) consecutive month period, each.

(c) Pursuant to Part 70 permit number T 005-7672-00047, yet to be issued, a synthetic minor limit was placed on the two (2) natural gas-fired boilers with No. 2 fuel oil backup, known as EU-B01, installed in 1973, exhausted through stack S10, rated at 61.5 million British thermal units per hour, each, of less than 6,704,225 gallons of No. 2 fuel oil, equivalent to less than two hundred thirty-eight (238) tons of SO_2 per twelve (12) consecutive month period, total. This limit resulted in total emissions from the source, including the unlimited maximum potential to emit from all engine test cells and engine attribute test cells, to be less than two hundred fifty (250) tons per year of all pollutants. Therefore, pursuant to 326 IAC 2-2 Prevention of Significant Deterioration (PSD), this source is currently a minor PSD source.

(d) As a result of this construction and modification, the total source emissions of SO_2 and NO_X will be greater than two hundred fifty (250) tons per year. Pursuant to 326 IAC 2-2 Prevention of Significant Deterioration (PSD) and SSM 005-11808-00047, this source will now be considered a major PSD source.

(e) None of the facilities in this modification had previous limited fuel throughputs.

(f) Since all emission increases from this construction and modification will be less than two hundred fifty (250) tons per year of any criteria pollutant, this construction and modification will be considered a minor modification pursuant to this rule. Any further construction resulting in an increase of emissions above the PSD significant levels will require a PSD review. Therefore, PSD review is not required at this time.

326 IAC 2-4.1-1 (New Source Air Toxics Control)

The facilities involved in this modification do not have potential emissions greater than ten (10) tons per year of any single HAP or twenty-five (25) tons per year of any combination of HAPs. Therefore, 326 IAC 2-4.1-1 (New Source Toxics Control) will not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of CO, NO_X, SO_2, and VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year).

326 IAC 5-1 (Opacity Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating)

The engine test cells and engine attribute test cells are not subject to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating) because they are not sources of indirect heating.

326 IAC 6-3-2 (Process Operations)

The engine test cells and engine attribute test cells are not subject to 326 IAC 6-3-2 (Process Operations) because, pursuant to 326 IAC 1-2-59 ("Process weight; weight rate" defined), liquid fuels are not considered as part of the process weight.

326 IAC 6-4 (Fugitive Dust Emissions)

Under no circumstance shall the source emit particulate matter to the extent that some visible portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limits)

The engine test cells and engine attribute test cells are not subject to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limits) because they do not have the potential to emit 25.0 tons per year or 10.0 pounds per hour or greater of sulfur dioxide.

326 IAC 8-1-6 (New facilities; General reduction requirements)

The total potential to emit volatile organic compounds from any combination of one (1) engine test cell, known as EU-P02, and one (1) engine attribute test cell, known as EU-P03 is less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

There are no other 326 IAC 8 rules that apply.

326 IAC 10-1 (NO_X Control In Clark and Floyd Counties)

Since this source is not in Clark or Floyd counties, the requirements of 326 IAC 10-1 do not apply.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The engine test cells have applicable compliance monitoring conditions as specified below:

Visible emissions notations of the engine test cells and engine attribute test cells stack exhausts, known as S02 and S03, respectively, shall be performed once per working shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary to ensure compliance with 326 IAC 2-7 (Part 70) and 326 IAC 5-1 (Opacity Limitations).

Conclusion

The construction and operation of the engine test cells and engine attribute test cells shall be subject to the conditions of the attached proposed Significant Source Modification No. SSM 005-11808-00047.

Appendix A: Summary of Potential Emissions Increase

Company Name: Cummins Engine Company - Midrange Engine Plant
Address City IN Zip: I-65 at CR 450S, Columbus, IN 47201
Source Modification No.: SSM 005-11808
Plt ID: 005-00047
Reviewer: Peter E. Fountaine
Date: January 25, 2000

Point	Source	Increase of PM (tons/yr)	Increase of PM-10 (tons/yr)	Increase of NOx (tons/yr)	Increase of CO (tons/yr)	Increase of SO2 (tons/yr)	Increase of VOC (tons/yr)	Increase of HAPs (tons/yr)
	Significant Emission Units							
Increase to EU-P02	Four (4) Engine Test Cells, main facility (increase)	7.13	7.13	101	21.8	6.66	8.27	0.0909
	increased fuel throughput from 320,501 gal/yr by 335,448 gal/yr to 655,949 gal/yr							
Increase to EU-P03	Three (3) Engine Attribute Test Cells, main facility (increase)	2.45	2.45	34.8	7.49	2.29	2.84	0.0312
	increased fuel throughput from 150,234 gal/yr by 115,194 gal/yr to 265,428 gal/yr							
New Equipment EU-P03	Two (2) Engine Attribute Test Cells, main facility (new)	3.76	3.76	53.4	11.5	3.51	4.36	0.0480
	fuel throughput of 176,952 gal/yr							
	Total Increase due to modification:	**13.3**	**13.3**	**190**	**40.8**	**12.5**	**15.5**	**0.170**

Appendix A: Emission Calculations
Increased Emissions Engine Test Cells and Engine Attribute Cells

Company Name: Cummins Engine Company - Midrange Engine Plant
Address City IN Zip: I-65 at CR 450S, Columbus, IN 47201
Source Modification Permit No.: SSM 005-11808
Plt ID: 005-00047
Reviewer: Peter E. Fountaine
Date: January 25, 2000

Potential Criteria Pollutant Emissions Increase

Point	Source	Potential Fuel Increase (gallons/year)	Fuel Type	Potential MMBtu/year	NOx Emission Factor (lbs/gallon burned)	Increase of NOx (tons/yr)	PM Emission Factor (lbs/gallon burned)	Increase of PM (tons/yr)	PM-10 Emission Factor (lbs/gallon burned)	Increase of PM-10 (tons/yr)
	Main Facility Test Cells									
EU-P02	4-350 HP engine test cells	335448	#2 Diesel	46963	0.604	101	0.0425	7.13	0.0425	7.13
EU-P03	3-350 HP engine attribute test cells	115194	#2 Diesel	16127	0.604	34.8	0.0425	2.45	0.0425	2.45
EU-P03	2-350 HP engine attribute test cells	176952	#2 Diesel	24773	0.604	53.4	0.0425	3.76	0.0425	3.76
Total Potential Fuel Throughput Increase (gallons/year):		**627594**		**Total Pollutant (tons/yr):**		**190**		**13.3**		**13.3**

Point	Source	Potential Fuel Increase (gallons/year)	Fuel Type	Potential MMBtu/year	CO Emission Factor (lbs/gallon burned)	Increase of CO (tons/yr)	SO2 Emission Factor (lbs/gallon burned)	Increase of SO2 (tons/yr)	VOC Emission Factor (lbs/gallon burned)	Increase of VOC (tons/yr)
	Main Facility Test Cells									
EU-P02	4-350 HP engine test cells	335448	#2 Diesel	46963	0.130	21.8	0.0397	6.66	0.0493	8.27
EU-P03	3-350 HP engine attribute test cells	115194	#2 Diesel	16127	0.130	7.49	0.0397	2.29	0.0493	2.84
EU-P03	2-350 HP engine attribute test cells	176952	#2 Diesel	24773	0.130	11.5	0.0397	3.51	0.0493	4.36
Total Potential Fuel Throughput Increase (gallons/year):		**627594**		**Total Pollutant (tons/yr):**		**40.8**		**12.5**		**15.5**

Potential HAPs Emissions Increase

Point	Source	Potential Fuel Increase (gallons/year)	Fuel Type	Potential MMBtu/year	Benzene Emission Factor (lbs/MMBtu)	Increase of Benzene (tons/yr)	Toluene Emission Factor (lbs/MMBtu)	Increase of Toluene (tons/yr)	Xylene Emission Factor (lbs/MMBtu)	Increase of Xylene (tons/yr)	1, 3 Butadiene Emission Factor (lbs/MMBtu)	Increase of 1, 3 Butadiene (tons/yr)
	Main Facility Test Cells											
EU-P02	4-350 HP engine test cells	335448	#2 Diesel	46963	0.000933	0.0219	0.000409	0.00960	0.000285	0.00669	0.0000391	0.000918
EU-P03	3-350 HP engine attribute test cells	115194	#2 Diesel	16127	0.000933	0.00752	0.000409	0.00330	0.000285	0.00230	0.0000391	0.000315
EU-P03	2-350 HP engine attribute test cells	176952	#2 Diesel	24773	0.000933	0.0116	0.000409	0.00507	0.000285	0.00353	0.0000391	0.000484
Total Potential Fuel Throughput Increase (gallons/year):		**627594**		**Total Pollutant (tons/yr):**		**0.0410**		**0.0180**		**0.0125**		**0.00172**

Point	Source	Potential Fuel Increase (gallons/year)	Fuel Type	Potential MMBtu/year	Formaldehyde Emission Factor (lbs/MMBtu)	Increase of Formaldehyde (tons/yr)	Acetaldehyde Emission Factor (lbs/MMBtu)	Increase of Acetaldehyde (tons/yr)	Acrolien Emission Factor (lbs/MMBtu)	Increase of Acrolien (tons/yr)	PAH Emission Factor (lbs/MMBtu)	Increase of PAH (tons/yr)
	Main Facility Test Cells											
EU-P02	4-350 HP engine test cells	335448	#2 Diesel	46963	0.00118	0.0277	0.000767	0.0180	0.0000925	0.00217	0.000168	0.00394
EU-P03	3-350 HP engine attribute test cells	115194	#2 Diesel	16127	0.00118	0.0095	0.000767	0.00618	0.0000925	0.000746	0.000168	0.00135
EU-P03	2-350 HP engine attribute test cells	176952	#2 Diesel	24773	0.00118	0.0146	0.000767	0.00950	0.0000925	0.00115	0.000168	0.00208
Total Potential Fuel Throughput Increase (gallons/year):		**627594**	**Total Pollutant (tons/yr):**			**0.0518**		**0.0337**		**0.00406**		**0.00738**
		Total Combined HAPs (tons/yr):		**0.170**								

Methodology:
Criteria Pollutant Emission factors were taken from the FIRE 6.2 Database, SCC# 2-02-001-02.
The HAPs emission factors were supplied by Cummins Industrial Center.
1.0 gal. diesel fuel = 0.140 MMBtu